

ABSTRACT

Laser active optronic system of improved detectivity

The invention relates to a laser active optronic system with improved detectivity, especially an eye-safe optronic system.

The system comprises a channel (1) for the emission by an emission source (10) of a laser beam illuminating a target and a channel (2) for receiving the wave backscattered by the target. An optical switching device (24) is positioned in the receive channel, said optical switching device receiving said backscattered wave and comprising an optical gain medium (241) and pumping means (242) for pumping said gain medium, said gain medium being absorbent at the wavelength of the laser and becoming substantially transparent when it is pumped, in such a way as to allow the switching device to be actuated in the on mode or off mode respectively.

It further includes a control unit (243) for controlling the pumping means, allowing the switching device to be actuated in the on mode in at least one temporal window of predetermined duration, triggered at a predetermined instant after the start of emission of the illuminating laser beam.

Figure 1A